UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,460	02/23/2004	John S. Worley	200313554-1	8564

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EXAMINER
TOLENTINO, RODERICK

ART UNIT	PAPER NUMBER
2134	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/785,460	WORLEY ET AL.
	Examiner	**Art Unit**	
	Roderick Tolentino	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event. however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 August 2004_.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-26_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-26_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 26 are pending.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

4.   As per claim 2, it is unclear as to what is meant by "contiguous memory

locations." Unclear as to whether or not there are multiple memory locations or if there

is a specific order the memory locations have to be in. For purposes of examination it

will interpreted to be multiple memory locations.

5.   As per claim 4, limitation recites "locating fragments." It is unclear as to what the

fragments are referring to. Are the fragments just data or another form of signed block.

For purposes of examination it will be interpreted to be data in the blocks.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

7.   Claims 1 – 11, 14 – 23, 25 and 26 are rejected under 35 U.S.C. 102(b) as being

anticipated by Lewis U.S. Patent No. (5,875,248).

8.   As per claims 1 and 15, Lewis discloses locating a signed authentication block in

a memory of a computer system, employing a cryptographic technique to verify that the

signed authentication block is authentic (Lewis, Col. 6 Lines 5 – 12, each block given a

digital signature), computing an authentication value from an in-memory image of the

software entity (Lewis, Col. 6 Lines 26 – 35, system code creates copy of signature of a

block) and comparing the computed authentication value with an authentication value

stored in the authentication block to determine whether or not the in-memory image of

the software entity is identical to an expected in-memory image for the software entity

(Lewis, Col. 6 Lines 26 – 35, Compares signature created by system code with

signature associated to a memory block).

9.   As per claim 2, Examiner has chosen the limitation locating fragments of the

signed authentication block in a number of previously established memory locations and

assembling the signed authentication block from the located fragments in a number of

contiguous memory locations, to be considered since the claim is looking for "one of"

the listed limitations. Lewis discloses memory locating fragments of the signed

authentication block in a number of previously established memory locations and

assembling the signed authentication block from the located fragments in a number of

contiguous memory locations (Lewis, Col. 3 Lines 6 – 20 and Col. 4 Lines 15 - 34,

multiple memory cards with multiple blocks to locate data).

10.   As per claim 3, Lewis discloses locating the signed authentication block by

computing one or more memory locations and extents according to a previously

established process (Lewis, Col. 4 Lines 15 – 34, each block has an identification field

which can be computed to locate a specific block).

11.   As per claim 4, Lewis discloses locating fragments of the signed authentication

block in a number of previously established memory locations and assembling the

signed authentication block from the located fragments in a number of contiguous

memory locations (Lewis, Col. 3 Lines 62 – 67 and Col. 4 Lines 1 – 3).

12.   As per claim 5, Lewis discloses validating the authentication block using a public

key and checking that the format of the validated authentication block corresponds to an

expected authentication block format (Lewis, Col. 4 Lines 15 – 34, encryption key with

validation).

13.   As per claim 6, Lewis discloses validating the authentication block using a public

key and checking that values included in the authentication block are identical to

expected values (Lewis, Col. 4 Lines 15 – 34, encryption key with validation).

14.   As per claim 7, Lewis discloses computing a cryptographic hash value using a

cryptographic hash function (Lewis, Col. 6 Lines 26 – 35, system code creates copy of

signature of a block).

15.   As per claim 8, Lewis discloses the cryptographic hash value is computed over

the entire in-memory image of the software entity (Lewis, Col. 6 Lines 26 – 35, system

code creates copy of signature of a block).

16.   As per claim 9, Lewis discloses the cryptographic hash value is computed over
one or more portions of the in-memory image of the software entity (Lewis, Col. 6 Lines
26 – 35, system code creates copy of signature of a block).

17.   As per claim 10, Lewis discloses comparing an additional computed
authentication value with an additional computed authentication value stored in the
authentication block to determine whether or not the in-memory image of the software
entity is identical to an expected in-memory image for the software entity (Lewis, Col. 6
Lines 26 – 35, Compares signature created by system code with signature associated
to a memory block).

18.   As per claim 11, Lewis discloses comparing an additional authentication value
stored in the authentication block with a value observed from the memory to determine
whether or not the in-memory image of the software entity is identical to an expected in-
memory image for the software entity (Lewis, Col. 6 Lines 26 – 35, Compares signature
created by system code with signature associated to a memory block).

19.   As per claim 13, Examiner has chosen the limitation a program or routine called
by a calling program or routine, to be considered since the claim is looking for "one of"
the listed limitations. Lewis discloses a program or routine called by a calling program or
routine (Lewis, Col. 6 Lines 26 – 35, system code creates copy of signature of a block).

20.   As per claims 14 and 26, Lewis discloses computer instructions encoded in a
computer readable medium (Lewis, Col. 10 Lines 1 – 6, computer-readable mediums).

21.   As per claim 16, Lewis discloses determining a memory location in or near the in-
memory image of the software entity that can be later determined by an authorizing

program in order to access the signed authentication block (Lewis, Col. 4 Lines 15 – 34, each block has an identification field which can be computed to locate a specific block).

22.   As per claim 17, Lewis discloses determining a number of memory locations in or near the in-memory image of the software entity that can be later determined by an authorizing program in order to access portions of the signed authentication block and assemble the signed authentication block (Lewis, Col. 3 Lines 62 – 67 and Col. 4 Lines 1 – 3, n data blocks).

23.   As per claim 18, Lewis discloses determining a memory location in or near the in-memory image of an authenticating software entity that can be later determined by an authorizing program in order to access the signed authentication block Lewis, Col. 4 Lines 15 – 34, each block has an identification field which can be computed to locate a specific block).

24.   As per claim 19, Lewis discloses determining a number of memory locations in or near the in-memory image of an authenticating software entity that can be later determined by an authorizing program in order to access portions of the signed authentication block and assemble the signed authentication block (Lewis, Col. 3 Lines 62 – 67 and Col. 4 Lines 1 – 3, n data blocks).

25.   As per claim 20, Lewis discloses the computed value is a cryptographic hash value generated by a cryptographic hash function on the expected in-memory image of the software entity (Lewis, Col. 6 Lines 26 – 35, system code creates copy of signature of a block).

26.   As per claim 21, Lewis discloses the computed value is a cryptographic hash

value generated by a cryptographic hash function on one or more portions of the

expected in-memory image of the software entity (Lewis, Col. 6 Lines 26 – 35, system

code creates copy of signature of a block).

27.   As per claim 22, Lewis discloses signing the clear text temporary copy of the

authentication block to produce a signed authentication block further includes: signing

the clear text authentication block using a private key (Lewis, Col. 4 Lines 15 – 34,

encryption key with validation).

28.   As per claim 23, Lewis discloses including an additional authentication value into

the clear text authentication block (Lewis, Col. 6 Lines 26 – 35, system code creates

copy of signature of a block).

29.   As per claim 25, Lewis discloses a software entity including an authentication

block (Lewis, Col. 6 Lines 5 – 12, each block given a digital signature).

Claim Rejections - 35 USC § 103

30.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

31.   Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lewis U.S. Patent No. (5,875,248) in view of Fairweather U.S. PG-Publication No.

(2003/0182529).

32.   As per claim 12, Examiner has chosen the limitation a stacked return pointer value, to be considered since the claim is looking for "one of" the listed limitations. Lewis fails to teach a stacked return pointer value. However, in an analogous art Fairweather teaches a stacked return pointer value (Fairweather, Paragraph 0033, Pointer value).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use Fairweather's system from managing memory with Lewis' method of counterfeit detection of electronic stored data because it offers the advantage of improving the management of memory in a system (Fairweather, Paragraph 001).

33.   As per claim 24, Examiner has chosen the limitation a return pointer value, to be considered since the claim is looking for "one of" the listed limitations. Lewis fails to a return pointer value. However, in an analogous art Fairweather teaches a return pointer value (Fairweather, Paragraph 0033, Pointer value).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use Fairweather's system from managing memory with Lewis' method of counterfeit detection of electronic stored data because it offers the advantage of improving the management of memory in a system (Fairweather, Paragraph 001).

Conclusion

34.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roderick Tolentino whose telephone number is (571) 272-2661. The examiner can normally be reached on Monday - Friday 9am to 5pm.
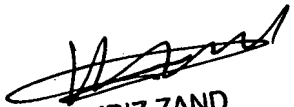
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roderick Tolentino
Examiner
Art Unit 2134

Roderick Tolentino

KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER